1943-44 **File No.** 6646/36

II

L. & A.S.S. P.W. **DEPARTMENT**

P.W.R. **BRANCH**

Subject:— Grid Scheme.

Reconstruction Committee of Council.

Appointed by Govt. of India.

Policy Committee No. 3-c.

Meetings agenda etc Grid system of electricity

B K 11944

File No. 6646/36-II

Ptd. Scott. Slip. 94 A

G R..G D., No 2408, dated 22-6-22.]

Correspondence

DOCKET SHEET (B)

Subject :—

File No. 6646/36-II

P. W. DEPT.

P.W.R. BRANCH.

References :—

Date.	To whom sent.	Notes and instructions.

Note on the meeting of Policy Committee 3-C on 25-10-1943 regarding Electric Power.

The meeting lasted one day only and was somewhat sketchy and inconclusive, chiefly because some Provinces were either inadequately represented or not represented. Thus Bengal and Mysore where electricity is extensively generated or used, were not represented, on the plea, it seems, of insufficient notice. There were only one Minister and two Advisers present including myself.

2. I gathered the impression that the main objects of the Government of India at this meeting were to obtain the general approval of Provinces and States on three questions of policy, viz:-

(i) that big developments in electricity should be an integral feature of India's post-war polity; that such developments should not be regarded in the light of mere financial profit (which had hitherto been inevitable, since most concerns were private concerns), but in the light of the fullest needs of industry and agriculture. And that in consequence greater State or quasi-State control was indicated; that in consequence it was desirable for the Government of India to set up a strong committee to control, and advise on, the future of electrical developments. (Note.Electricity is a concurrent subject.)

(iii) that it is desirable to prepare and place the order for India's future needs of large electrical machinery as soon as possible and to provide for the training of Indian Electric Engineers in the U.K.

3. With these the Provinces and States represented felt no difficulty in concurring; and as regards (i) the position could not be better put than it is in paras 6 to 11 of the printed note on item 1 of the agenda (placed below).

* placed below.

4. Coming to the Agenda, the first item was a general review of the present position in India and of major schemes known to be under consideration.

Annexture A attached to the printed note on item 1 of the agenda will shew that Bombay comes first in electrical undertakings, being closely followed by Bengal, and that next come Madras, U.P. and Mysore.

As regards Bombay, I said that Companies (76 in number) were already serving almost all the large towns in this Province. They were sharply divided into five main companies supplying electricity either in bulk or direct to Bombay, Bombay Suburban, Poona and Ahmedabad, and the remaining concerns which were in almost all cases very small concerns, some of them not yet solvent. We had, however, not yet even touched the rural areas and agriculture, not even industries except in the large towns, since in other areas, in view of the charges made by the licensees, it would not be economic to take power. As regards scheme in view, we had the Grid system and also the hydro-electric scheme at Bhandardara.

The representative of the Punjab stated that they were explering large hydro-electric systems both in the Himalayas and in the Vindhya range.

Note. I consulted the representative and he said that they were definitely committed to the latter, but had not yet decided how far the former should be dealt with with regard to section 93.

The Madras representative said that the Province was contemplating a new hydro-electric scheme between Madras City and Vizagapatam, and would also extend the Pykara scheme.

The representative from the Central Provinces said that they hoped to have two grids in the Nagpur and Jubbulpore areas respectively.

The other representatives had nothing much to say about major schems under contemplation.

5.....

5. Item 2 related to a discussion of any defects noticed in the present system of administration and the question whether in future there should be an increase in State or quasi-State ownership.

As regards Bombay, I said that our licensees had done tolerably well with the exception of the (Hublim), and that there was not much to be said about the general criticisms in the memorandum accompanying the item (placed below). I also endeavoured to defend the system of alleged heavy taxation of electricity in Bombay.

As regards the future, I said that Bombay was not yet definitely committed to the Grid system, which involves quasi-State management, but that my personal opinion was it was preferable to State ownership because - -

(i) it would command better brains and effieiency;

(ii) it would command better engineering experience;

(iii) it would act more speedily and would be free from the red tape, which is often a feature of Government institution;

(iv) it would be easier from a financial point of view, because funds would be raised by debentures probably guaranteed by Government which would be raised as the work proceeded.

The other representatives referred chiefly to the defects or otherwise of the present procedure, and had not much to say about what should be done in future.

In summing up this item, Sir Ramaswami Mudaliar said that the main question was not to consider the defects of the present system, but what should be done in the future. He said that there appeared to be a clear indication that there must be some form of State or quasi-State ownership in the future. It could hardly be expected that private companies should adopt nice distinctions between ordinary supply and special concessions to agriculture and industry and India was not any different in this respect to other countries in the U.K. He said stress on the fact that future schemes must not depend on early returns, or even on financial returns generally.

In this connection it is definitely recommended in the printed note on item 1 of the Agenda (para.12) that for the first six or seven years it will usually be necessary to permit annual deficits to be charged to work capital and that the final justification for proceeding with projects must be based on the estimated results for a period of at least 10 years and this after allowing for the capitalization of early losses.

6. The third item related to overseas training for Indian Engineers and the suggestion that in view of the probable post-war increase in industry a scheme should be prepared and, to some extent, financed by Government for the training of Indian Electrical Engineers in the United Kingdom.

Before the meeting took place the Director of Industries and myself were provisionally of the opinion that we had more electrical engineers in this Province than could at present find employment. The printed note accompanying the agenda however made it clear that the training related to training not in engineering but in the commercial and economic aspects of electricity supply. We therefore, had no difficulty in agreeing to the principle, and the Director of Industries, who spoke on this subject, added the suggestion that such persons should also be trained in design and manufacture so as to permit in future of the establishment in India of concerns manufacturing smaller types of electrical machinery.

The other representatives also had no difficulty in concurring, and some of them agreed to the further extension of the scheme proposed by Mr. Advani.

7. Mr. Mathews gave an interesting outline of the scope of a Central Electricity Control Committee if appointed in the future. It would among other things deal with the main principles on which electric supply and control of companies should proceed e.g.such questions as sliding scales for charge of electrical energy, depreciation; reserves, managing agents, uniformity of accounts. It should also establish a hydro-electrical research laboratory at e.g. the Indian Institute of Science, Bangalore.

With reference to the accompanying note on the proceedings of the recent Post-war Reconstruction Policy Committee No.3-C on electric power, I think it has become evident that we must now take a final decision as to whether we should adopt the Grid system, and in that connection whether we should proceed with the examination of the tentative bill already prepared by the Director of Industries and the Electrical Engineer.

2. An official account of the proceedings, and suggested resolutions on these proceedings, will follow from the Government of India in due course, but they will not assist us in coming to this main decision.

3. I think there can be no doubt that we should reach a decision now, and the major point, -which to this extent affects all our post-war reconstruction schemes-, seems to be whether Section 93 should debar us from proceeding with the bill and initiating action now. In this particular instance there are strong reasons for anticipating concurrence of a future government. The examination of the Grid system was initiated by the late Govt. which ordered the preparation of the scheme in 1938. It is certain that it was almost committed to the system, and would have proceeded with it as soon as the ground was prepared. In the course of one of his speeches at the Conference Sir Ramaswami Mudaliar stated that Provinces should certainly not be bound by Section 93 in proceeding with major electrical schemes. In fact, all post-war development on the agricultural and industrial sides postulates development of electricity and some form of State or quasi-State ownership.

4. The only alternative to the gird system would be whether we should re-trace our steps and proceed on the basis of State ownership and take up directly such schemes as the Bhandardara, and perhaps the Koyna Valley project. I endeavoured to give the reasons in favour of the Grid system at the Conference and they are stated in my note on its proceedings. In brief the advantages of State control are direct control and ownership. But there seems little else in its favour. It is true that some other Governments, e.g. Madras, the Punjab and.....

and U.P., have adopted, ~~xxx~~ or are going to adopt the system . But it seems pretty clear that Government schemes proceed only gradually, and as funds become available and therefore progress is much slower. Thus it is true that Madras has set up 3 or 4 major hyder-electric schemes which provide more for rural than urban development, but the fact remains that it has as yet covered a smaller area than we have. (I gathered in conversation with the ~~Hdqrs~~ Chief Engineer that he personally favoured our scheme). By the Grid system we should be able almost immediately to deal with the Province as a whole. Probably one of the chief difficulties in every form of post-war reconstruction, so far as this Province is concerned, will be the question of personnel, and this would be especially so in regard to electricity. (I was astonished to find that Madras has 4 Chief Engineers, including the Chief Engineer (Electricity), whereas we have one, who is chiefly a Secretariat officer).

As regards finance, the Grid system was estimated to cost Rs. 256 lakhs, and with the enormous increase in prices, this figure would probably have to be considerably increased. There should, however, not be any direct demand on Provincial funds if, as contemplated, the Electricity Board raised the funds as and when required by the issue of debentures.

5. The question of an early decision relates also to the ordering of post-war machinery. While it was made clear by the Electrical Commr., Mr. Mathews, that Provinces are not definitely committed in sending their estimates of machinery likely to be required, it was made clear in the letter concerned that the statement of requirements should be based on schemes fairly definitely decided on, and we should in any case have to declare our hand reasonably early.

6. From the information I have been able to obtain, all the companies including the larger companies, e.g. Tatas, Killick Nixon and the Bombay Electric Supply, do contemplate the taking over by Government or local bodies of their concerns in some form or another inthe near future. The ground is therefore on this aspect to some extent already prepared. It might, however, be advisable to ascertain their reaction, ~~xxxx~~ e.g. by discussion with Messrs. Tatas. It may, however, be assumed that ~~xxxx~~ this reaction will be adverse. Apart from vested interests, there is, in the case of Tatas, the additional American interests which purchased half the managing interests and a large portion of the share capital. The same American interests have already purchased the Schemes at Poona, Nasik and Broach. There is also in the case of the large concerns the difficult element of large profits absorbed by managing agencies which take at least ten per cent of profits. Under the English Grid System it was possible for the Electricity Board to utilise existing agencies to a large extent, but it had not to contend with such things as enormous fees paid to Managing Agencies. Again although there is provision for taking over concerns by local bodies at the expiry of definite terms, I doubt if the Companies take this seriously, since in India large vested interests have usually prevailed even against Government.

7. As to the Koyna Valley Scheme, this was fully investigated by Messrs Tatas in 1926 and abondoned at that time. Its main idea was based on establishing large metallurgic industries on the spot and indirectly of increasing electridity supply to Bombay and the Suburbs. I have gathered from the Director of Industries that the long lead and consequent cost will no longer make the latter worth while, whereas the scheme is important for the Southern Deccan and the Southern Division. It would have to be carried out by Government or the Electricity Board. It would probably be best not to discuss it with Tatas, since that Company probably feels that it has some right to the concession in view of its exploratory work, whereas this is not actually so.

8. The other Advisers and His Excellency may consider this subject to be of sufficient importance for an early discussion.

On.....

On the other hand, since it has now been ascertained that Scheme will be chiefly rural (except possibly in the case of Ahmedabad City) it may be desirable to await the return of the Adviser, Mr. Knight, before a date is fixed for discussion.

Id/-
8/11/43

A(H)
A(E)
H.E(P.S).

On the point of taking a decision under sec. 93 regime there is good reason to agree with Sir R.Mudaliar's view. Sec.93 in Bombay has been inforce for 4 years already and is likely to go on until the end of the war. It is not a temporary arrangement but a war time system which could not be avoided. It is not merely not necessary but it would be positively harmful to postpone all beneficial legislation till sec. 93 is abandoned. This form of constitution makes possible legislation adopted on its merits and not for political reasons.

2. As to the adoption of the gird system I regret that I am not clear as to what is meant, as the grid system as I understand it is a method of distribution and not a form of management. It is presumably impossible to link up the whole province on one grid owing to the enormous area to be covered but small grids in a few areas where hydro-electric power is obtainable have obvious advantages in a country in which fuel is so scarce.

3. There are frequent references to the use of ~~xxx~~ electricity for agricultural purposes. In England, a comparatively small and highly industrialised country, the grid which provides power in the suburbs of London at 3/4d. charges 10½d. in the villages 100 miles away. Consequently it is ~~xx~~ not used in villages or even small towns unless they are along the main lines of distribution. Its use ~~xx~~ for agricultural purposes except along those lines must be negligible. It is not clear how it could be used in India for agricultural purposes at all except at a few favoured spots....

4/.....

4. There would seem to be a strong case for working out local grid schemes in suitable areas primarily for city or industrial use, and for these the machinery and equipment should be ordered at once.

Id/-
C & B. 9/11/43. A(F).

HE(G.S.)

I have not had time to study this carefully as A(F) wishes it reach H.E. before he goes to Delhi, to be send to conjunction with a latter from the Viceroy on another aspect of the problem which has just come in.

I should welcome an discussion after Mr. Knight returns.

Id/-
11/11
H. E. (G.S.)

This matter was considered by His Excellency at a meeting with the Advisers this morning, which was also attended by Mr. Higham and Mr. Advani. It was agreed that legislation should not be delayed on the ground that the Province is now under Section 93 administration. It was further agreed, on A(R's) advice, that the next steps to be taken are (1) the scrutiny and preparation of the Bill; and (2) the selection of the personne for the Electricity Board in consultation with Messrs. Tatas Limited and the linked American interests, and with Messrs. Killick Nixon and Co.

Id/-
Dated 13/12/43.

I do not think A quite describes the decision. I understood that the procedure would be :-

i) as stated in C.S? note.

ii) discussion with Messrs. Tatas & linked Limited American interests & Mr. Killick Nixon of the implications of the Grid System & their reactions to it,

iii) Selection of the personnel of the Electricity Board. Tatas etc. are not concerned with iii)

ii) & iii) would proceed pari passu into (i)

14/11/43 Id/-
I agree with A(R)

The above is accepted.

Dated:- 15/12

I am not clear where the Grid Bill is at present, i.e. in G.D. or R.D.

2. So far as I recollect, it had reached the stage when it was proposed to send it to Departments concerned for their remarks. We should now consider whether this is necessary, or whether, since we have now decided to proceed with the Bill, it can go straight to R.L.A. to put in proper legal form. It may be necessary for other Departments first to note whether any general principles in it are open to objection or difficulty, or whether any points are omitted, so as to save R.L.A's time.

3. As to discussion with Messrs. Tatas etc., I should very much like to do this before Mr. Advani's departure, i.e., if possible, during the first week of January. I think the first step will be to ask Messrs. Advani and Higham to suggest the exact persons to be invited to the discussion. It might also be desirable to invite a representative of the Electrical (Mr.Noel-Paton's) Association. On the Government side, I take it we should be represented by A(E) and myself, Messrs. Advani and Higham and the Secys. concerned.

4. We can take up the question of selecting the personnel for the Electricity Board when we have had a meeting with Messrs. Tatas etc.

5. I have suggested to A(E) that as this question is connected partly with Electricity (P.W.D.) and partly with Industries, we should deal with the case in conjunction.

6. It is necessary to push on the matter as rapidly as possible. Three independent files should therefore be opened according to the three decisions arrived at at the meeting of His Excellency with the Advisers, starting with the relevant portion of the noting on each file. The relating to a meeting with Messrs. Tatas etc. should be sent immediately u.o. to Messrs. Advani and Higham to suggest the persons to be invited. It will save time if

It should I think contain a very brief account of the system Bill-

is enough to take turn (tell them) : they will draft the confidential letter of invitation to be
: written to them and send it to me.
what we wish to diduss. :

141-
21/12/43.

A (E)

Secy.G.D.

Secy.P.W.D.

I agree with A(R)'s note. The action proposed in paragraph 6 of it should please be taken in P.W.D. as we have no Secretary in G.D. at present. The discussion with Messrs. Tatas etc, will probably have to take place either on the 5th or 6th January according as one or other of these dates is fixed for the final budget meeting. This should be known by the time the draft letter reaches A(R). Mr.Noel-Paton could of course represent both Messrs. Killick Nixon and the Association of Electrical Undertakings but he may wish to bring colleagues in one or both capacities.

G.D.(G branch) should please note whether the electric grid bill is with them, and if, not, pass on these papers at once to Secretary, P.W.D.

Id/-

21-12-43.

S.A.S.,G.D.

G. D.

The papers relating to the electric grid bill are not in this Deptt. They are in the P.W.D. who is considering the question in consultation with the other Deptts. These papers may therefore be passed on to the Secy., P.W.D.

Id/-
21/12/43.

Id/-
21-12-43

u.o.r. to Secy., P.W.D. dated 21-12-43

This case be draft with very urgently, on the lines indicated in the A(R)'s note (P.7. & 8 ante).

Id/-

21/12/43

P.W.D.....

EL. BR.

Submitted.

2. As directed by A(R) in para.6 of his note, dated the 21st Decr. 1943. the following three independent files have been - - - opened starting with the relevent portion of the noting on each of them:-

(i) File 6730/36 (1) - Scrutiny and preparation of the Grid Bill;

(ii) File 6730/36(2) - Discussion with M/S. Tatas and others of the implications of the Grid system and their reactions to it;

(iii) File 6730/36(3) - Selection of personnel of the El.Board.

3. The Grid Bill was sent back to the F.D. by A(R) on his return from the meeting of the Policy Committee No.3(c) in Novr.1943. That Deptt. was once reminded to return it, but it has not so far been received back. File (i) has therefore, been refd. u.o. to that Deptt. with a request to return the Bill as soon as possible.

: Yes, but someone must watch this disposal. I do not understand whether P.W.D. & C.D. stating ~~x~~ that case.

4. File (ii) was refd. to M/S Advani and Higham on the 22nd Decr. 1943 as - - directed by A(R) in the concluding portion of para. 6 of his note within.

: Dealt with.

5. File (iii) is also being refd. u.o. to the El. Engr. to Govt. and the Dir. of Industries for suggesting the terms of appointment of the Chairman and members of the Ely. Board.

: I think they will find this difficult. It will probably be best to discus the after ~~the~~ we have seen the Tatas etc.

6. As regards the machinery for the Grid system, the El. Commr. with the Govt. of India and the Govt. of India have been informed that the question of putting up a Grid in this Province being still under consideration this Govt. is not at present in a position to specify the machinery but a requisition is likely to follow.

7. These papers may now be returned to A(R).

Id/-
24-12-43.

~~dated~~ 28/12/43

See Margins.

A(R) A. Surely not. I saw a huge list of machinery before I left for Delhi.

Or was that for other objects. I should like to know about this very ungently.

27/22/43

El. Br. P. W. D.

Resubmitted.

2. As regards A(R)'s note against para.3 of the O.N. on p. 10 ante, the case dealing with the Grid Bill is being dealt with in this Deptt, and its disposal will be watched by this Deptt.

3. With ref. to A(R)'s note against para. 5 of the O.N. within; the file in question need not be called back from the El. Engr. to Govt. and the Dir. of Industries.

4. In connection with A(R)'s note against para.6 of the O.N. overleaf, lists of materials for the Grid and the Bhandardara Hydro-Electric schemes prepared by the El.Engr. to Govt. were given to him when he went to Delhi to attend the meeting of the Policy Committee No.3.6. It was subsequently decided not to send the list for the Grid scheme- vide para.2 of G.L.No.-6572/36-El, dated the 6th Decr. 1943, to the El. Comsr. with the G. of I. and the endt. below it to the G. Of I. and the proceedings underlying it, including Knight's & Tauntour's notes dated 3.12.43 at p. 116 of the file slipped. "B".

Id/-

28/12 A(R).

Noted.

As to para. 4, it is true that para. 8 of the G. of I. E B I. of 9th Oct. 1943 said that the present requisition in Elect. machinery need actually that the Central Govt. will not be prepared and to interest itself in the near future in other scheme which need considerable planning and we have warned G. of I. that we may be sending a further requisite in respect of the grid. The previous sentence however cultivatems schemes which can commence within year also makes of the cessation of institutes be certainly hope that the grid will state within this period. We must therefore keep in view the necessity of making the proper requisition as soon

as we are in a position to do so

29/12/43.

Ex. Br. P. W. D.

Submitted.

2. These papers may now be returned to A(R) as they are required by him. The concluding sentence of his note above has been noted and a copy of this note has been kept on File 6572/36 refd. to in para. 4 of the O.M. on the previous page. This file which is not now reqd. to be put up with these papers has been removed for taking the necy. further action.

Id/- Id/-

4-1-44 4/1/44

Returned to P.W.D.

12/1/44

P.W.D. Addl. Secy. may pl. see.

Id/-

12/1/44. Seen

Id/-